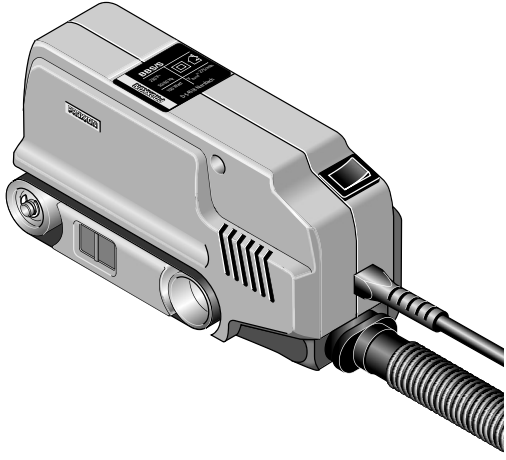
PROXXON

MICRO-Belt Sander
BBS/S



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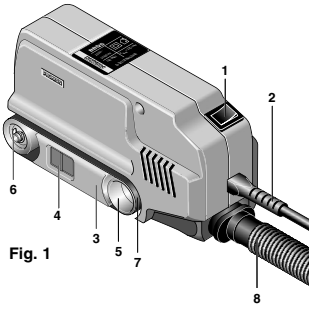

Fig. 1

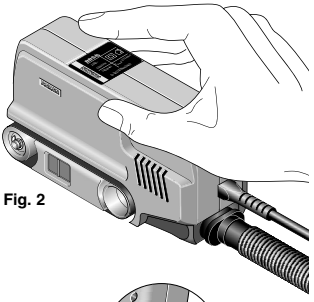

Fig. 2

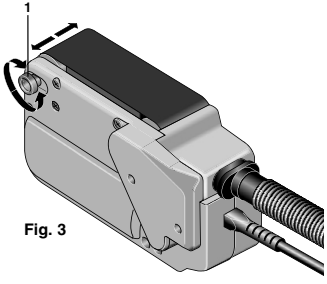

Fig. 3

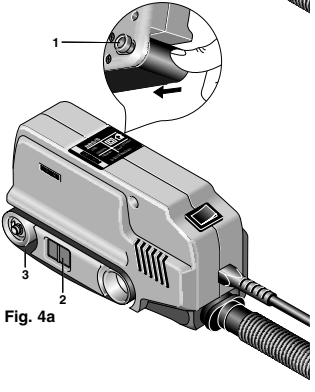

Fig. 4a

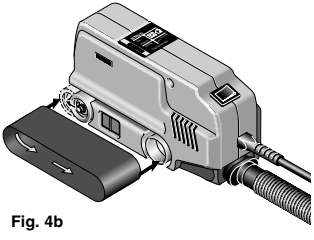

Fig. 4b

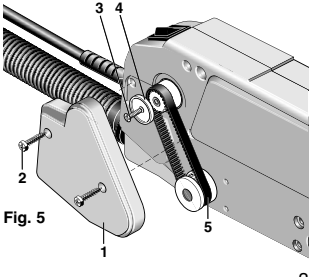

Fig. 5

Operating instructions
BBS/S MICRO-Belt Sander

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Dear Customer,

In order to be able to operate your Sander safely and correctly, please carefully read the following safety and operating instructions prior to use.
The use of these instructions makes it easier to get familiar with the device, prevents malfunctions caused by improper operation, and lengthens the service life of your device.

This instruction manual covers:
- safety regulations
- operation and maintenance
- spare parts list

Please read carefully!

Using this instruction manual will

- make it easier for you to get used to the machine,
- help prevent faults occurring due to improper use and

- increase the service life of your machine.

Keep this instruction manual in an easily accessible place.
Only operate this machine if you are qualified to do so and follow the guidelines in this instruction manual.

PROXXON does not accept responsibility for the safe functioning of the machine
- if it is handled in a manner which constitutes improper use,
- if it is used for other purposes which are not specified in the instruction manual,
- if the safety regulations are not observed.

Warranty claims are invalid if
- the machine is incorrectly operated,
- the machine has not been sufficiently maintained.

In the interests of your safety, please always observe the safety regulations.
Only use genuine PROXXON spare parts.
We reserve the right to make further alterations for the purpose of technical progress.
We wish you every success with your machine.

1 General safety instructions

Warning!
Read and understand all instructions. Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.

Save these instructions!

Work Area

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.

2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.

3. **Keep bystanders, children, and visitors away while operating a power tool**. Distractions can cause you to lose control.

Electrical Safety

4. **Double Insulated tools are equipped with a polarized plug (one blade is wider than the other.) This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.** Double Insulation

   ⧈ Class II Equipment eliminates the need for the three wire grounded power cord and grounded power supply system.

5. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigeratorsand refrigerators.** There is an increased risk of electric shock if your body is grounded.

6. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.

7. **Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.** Damaged cords increase the risk of electric shock.

8. **When operating a power tool outside, use an outdoor extension cord marked „W-A“ or „W.“** These cords are rated for outdoor use and reduce the risk of electric shock.

Personal Safety

9. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.

10. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.

11. **Avoid accidental starting. Be sure switch is off before plugging in.** Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.

12. **Remove adjusting keys or wrenches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.

13. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.

14. **Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

Tool Use and Care

15. **Use clamps or other practical way to secure and support the workpiece to a stable platformstable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.

16. **Do not force tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.

17. **Do not use tool if switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.

18. **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive

safety measures reduce the risk of starting the tool accidentally.

19. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.

20. **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools, with sharp cutting edges are less likely to bind and are easier to control.

21. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tools operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.

22. **Use only accessories that are recommended by the manufacturer for your model.** Accessories model. Accessories that may be suitable for one tool, may become hazardous when used on another tool.

SERVICE

23. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.

24. **When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock or injury. Certain cleaning agents such as gasoline, carbon tetrachloride, ammonia etc. may damage plastic parts.

2 Specific safety rules

1. **Accessories must be rated for at least the speed recommended on the tool warning label.** Some material may produce harmful or toxic dust (i. e. lead containing paint, some kinds of wood or metal). Accessories running over rated speed can fly apart and cause injury.

2. **Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.
3. **Always disconnect tool from power source** before making adjustments or changing accessories.
4. Make sure that the cord will not get hung up during sanding.
5. **Let the motor come to a complete stop** before putting the tool down.
6. **Do not leave the tool running.** Operate the tool only when hand-held.
7. **Check the abrassive belt carefully** for damage before operation. Replace damaged belt immediately.
8. **Always keep hands away** from rotating and moving parts to prevent personal injury.
9. **Wear hearing protection** during extended period of operation.

10. **Some material contains chemicals which may be toxic.** Take caution to prevent dust inhalation and skin contact. Follow material supplier safety data.
11. **Keep cutting pressure constant.** You could overload the motor.
12. **Make sure** the belt is not contacting the workpiece before the switch is turned on.

SAVE THESE INSTRUCTIONS!

WARNING!
Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and arsenic and
- chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

3 Symbols

Important: Some of the following symbols may be used on your tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

Symbol	Name	Designation/Explanation
V	Volts	Voltage (potential)
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watt	Power
kg	Kilograms	Weight
min	Minutes	Time
s	Seconds	Time
Ø	Diameter	Size of drill bits, grinding wheels, etc.
n_0	No load speed	Rotational speed, at no load
…/min	Revolutions or reciprocation per minute	Revolutions, strokes, surface speed, orbits etc. per minute
1, 2, 3, …	Selector settings	Speed, torque or position settings. Higher number means greater speed
	Infinitely variable selector	Speed is increasing from narrow end
→	Arrow	Action in the direction of arrow
~	Alternating current	Type or a characteristic of current
⧈	Class II construction	Designates Double Insulated Construction tools.

4 Legend (fig. 1)

1. On/Off switch
2. Connecting cable with mains plug
3. Belt support
4. Tensioning slider
5. Drive roller
6. Tension roller
7. Grinding belt
8. Suction hose

Caution:
Use your belt Sander only in well-ventilated areas.
Pay attention to the dust concentration in the air. Do not use the BBS/S if the surrounding air becomes dusty or wear a mask.

5 Technical data

5.1 Motor:

Voltage:	110 - 120 V ~, 50/60 Hz
Power:	150 Watt (1,3 A)

5.2 Unit:

Grinding speed:	525 ft/min (160 m/min)
Dimensions: (LxWxH):	6.9"x2.5"x 3.5" (175x63x90 mm)
Dimensions of sanding belt:	10 7/16" x 1 37/36" (265x40mm)
Grinding area:	2 37/64" x 1 37/64" (60x40mm)
Weight:	ca. 2.42 lbs (1,1 kg)
Noise:	≤ 83 dB (A)
Vibration:	≤ 2.5 m/s²

Protection class II device

Please do not dispose off the machine!

Caution:
Always use ear protection when working!

6 Description of the machine

The PROXXON BBS/S block belt Sander is an ideal tool for building models, tools and moulds but is also suitable for small car repair jobs, such as on the bodywork for example. The sanding belt is located flush on the left side to allow surfaces to be sanded "right down to the corner".
A fine adjustment for the rollers prevents running off on the side. Spring clamping system for easy replacement of belts without tool:
The BBS/S can be used for de-burring, roughing, fine sanding, edging, paint-stripping, rust removal and sharpening tools.
For machining steel, non-ferrous metals, wood and plastics. Included with the machine are 2 x 5 grinding belts with different grit sizes (120/240).

7 Operation

The belt Sander is easily guided over the surface to be sanded with the right hand. Hold the BBS/S as shown in Fig. 2.
Make sure you do not obstruct the cooling slots for the motor. Take care not to apply too much pressure when working. This causes the belt to wear quickly and, furthermore, will put excessive strain on the mechanics.

The best results are obtained by using moderate pressure.

Caution:
Ensure that no poisonous dusts can be produced, for example, when sanding paints which contain lead, some types of wood and some metals.
Always use a dust mask when working.

Caution:
The belt sander is not suitable for wet sanding.

7.1 Adjusting the belt run

Caution! Risk of injury!
Please proceed with particular care when tracking the belt.
If the belt does not run sufficiently straight or if the belt runs inwards or outwards, the position of the front roller can be adjusted by turning the knurled screw 1 (Fig. 3). Turning the knurled screw clockwise will make the belt run further towards the inside; turning counterclockwise will make the belt run further towards the outside.

7.2 Fitting or replacing the grinding belt

In use, the sanding material will wear and the effectiveness of sanding will reduce due to the belt becoming clogged with sanding dust or the abrasive grits becoming worn. With its rapid tensioning mechanism, the BBS/S provides a very quick and convenient way of changing sanding belts.

Caution! Risk of injury!
Unplug from electrical outlet before changing the sanding belt.
Please use only genuine PROXXON spare parts.

1. Slacken the knurled screw 1 (Fig. 4a).
2. Then push in the belt roller until the slide 2 of the tensioning mechanism clicks into place.
3. Remove the worn sanding belt 3.
4. Fit new sanding belt. Make sure to place the belt in accordance to the arrow for the direction of running (Fig. 4b).
5. Press in the slider slightly to release the catch. The fork will spring back to its original position. The belt is now automatically preset to the correct tension by spring pressure.
6. The belt run may possibly have to be re-adjusted using the knurled screw 1.

8 Accessories

WARNING!
Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool, may become hazardous when used on another tool.

Replace damaged or worn abrasive belts immediately. They represent a safety risk and worsen the work result.

Please use PROXXON accessories.
NOTE: The use of improper accessories may cause hazards.

8.1 Accessories recommended and actually provided by PROXXON

(Current and available at the time this manual was printed):
Standard corundum sanding belts for BBS/S block belt sander, various grits of high density, on a powerful backing, cover a wide range of applications. Used on metals, non-ferrous metals, wood and plastic. Size 10 7/16" x 1 37/36" mm. 5 pc. each package

NO 28 922	grit	80
NO 28 924	grit	120
NO 28 926	grit	180
NO 28 928	grit	240

9 Care and maintenance

Caution!

Unplug tool from electrical outlet before carrying out any maintenance and cleaning work. Apart from occasional cleaning, the unit is essentially maintenance-free. When cleaning, please pay attention to the following:

9.1 After use

Thoroughly clean the unit of all sanding dust with a brush or soft cloth. In particular, the dust which collects in the belt drive must be removed. Cleaning with compressed air, if available, is suitable for this. However, care must be taken to avoid inhaling the dust. Always wear a dust mask when performing this process. Otherwise, no special maintenance is required.

9.2 Changing the drive belt (Fig. 5)

In very rare cases, it may be necessary to replace the drive belt inside the unit due to wear or breakage. In this case, proceed as follows:

Caution! Risk of injury!
Unplug from electrical outlet.

1. Remove cover 1 after unscrewing both screws 2.
2. Unscrew, screw 3 and remove collar disc 4 of the upper timing belt pulley.
3. Remove old drive belt 5 and fit the new sprocket belt.
4. Reassembly occurs in reverse order.

9.3 Disposal

Please do not dispose of the device in domestic waste! The device contains valuable substances that can be recycled. If you have any questions about this, please contact your local waste management enterprise or other corresponding municipal facilities.

10 Spare parts list

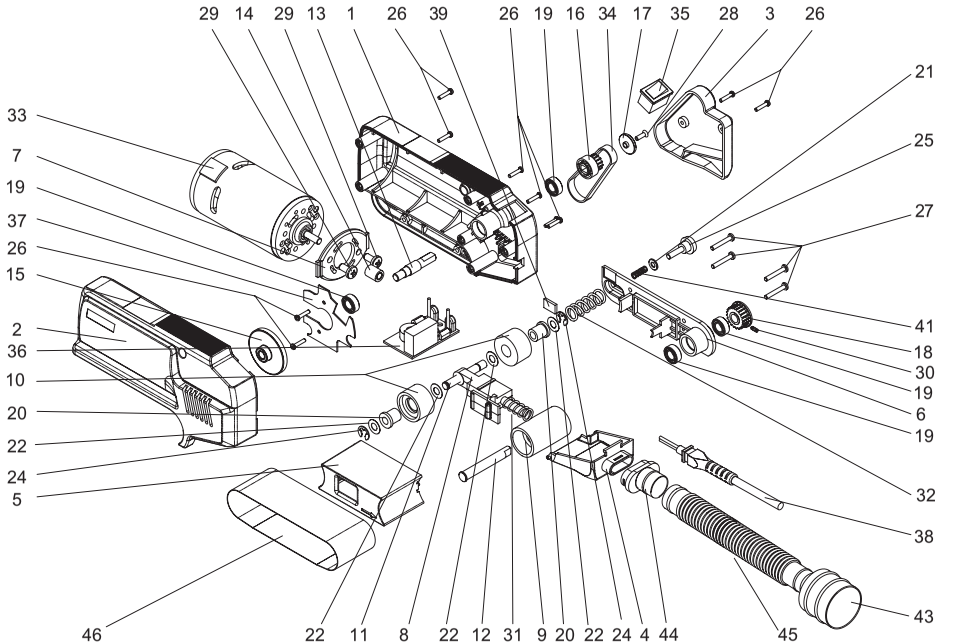
MICRO-Sander BBS/S, Article No. 38526

Please order spare parts in writing from PROXXON Service center (Address on back of instruction manual)

Part no.:	Designation	Part no.:	Designation
28526 - 01	Casing half, gear side	28526 - 25	Knurled screw
28526 - 02	Casing half, ventilation slots	28526 - 26	Screw
28526 - 03	Cover for driving belt	28526 - 27	Screw
28526 - 04	Dust port	28526 - 28	Screw
28526 - 05	Support for abrasive belt	28526 - 29	Screw
28526 - 06	Support	28526 - 30	Set screw
28526 - 07	Mounting plate for motor	28526 - 31	Spring
28526 - 08	Forked lever	28526 - 32	Spring for front pulley
28526 - 09	Drive pulley	38526 - 33	Motor
28526 - 10	Front pulley	28526 - 34	Driving belt
28526 - 11	Shaft for front pulley	28526 - 35	Switch
28526 - 12	Shaft for drive pulley	28526 - 36	Board
28526 - 13	Shaft for gear	28526 - 37	Insulating plate
28526 - 14	Gear wheel, motor side	38526 - 38	Power cord with bend protection
28526 - 15	Ring gear		
28526 - 16	Pulley 14 teeth	28526 - 39	Plate
28526 - 17	Washer disk	28526 - 41	Spring
28526 - 18	Pulley 20 teeth	28526 - 43	Hose
28526 - 19	Roller bearing	28526 - 44	Adaptor
28526 - 20	Bearing bush	28526 - 45	Connection hose
28526 - 21	Washer	28526 - 46	Abrasive belt
28526 - 22	Shim	28526 - 99	Manual
28526 - 24	Circlips		

11 LIMITED WARRANTY OF PROXXON POWER TOOLS FOR HOME USE

Prox-Tech, Inc., ("Seller") warrants to the original purchaser only, that all PROXXON consumer power tools will be free from defects in material or workmanship for a period of two years from the date of purchase. Seller's sole obligation and your exclusive remedy under this limited warranty and, to the extent permitted by law, any warranty or condition implied by law, shall be the repair or replacement of parts, without charge, which are defective in material or workmanship and which have not been misused, carelessly handled, or misrepaired by persons other than Seller or Authorized Service Station. In the event of a failure of a product to conform to this written warranty, please refer to the Service and Repair section on the back of this manual and take action accordingly. This Limited Warranty does not apply to accessory items such as circular saw blades, drill bits, router bits, jigsaw blades, sanding belts, grinding wheels and other related items. Damage to the product resulting from tampering, accident, abuse, negligence, unauthorized repairs or alterations, unapproved attachments or other causes unrelated to problems with material or workmanship are not covered by this warranty. Any implied warranties shall be limited in duration to two years from date of purchase. Some states in the U.S. and some Canadian provinces do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. In no event shall seller be liable for any incidental or consequential damages (including but not limited to liability for loss of profits) arising from the sale or use of this product. Some states in the U.S. and some Canadian provinces do not allow the exclusion or limitation of incidental or consequential damages; so the above limitation or exclusion may not apply to you. This limited warranty gives you specific legal rights, and you may also have other rights, which vary from state to state in the U.S., province to province in Canada and from country to country. This limited warranty applies only to PROXXON power tools sold within the United States of America, Canada, the commonwealth of Puerto Rico and Mexico. For warranty coverage within other countries contact your local PROXXON Importer.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PROXXON

SERVICE AND REPAIR

Your device does not work properly? Please read the operating instructions again carefully. If the unit is in fact defective, please send it to:

Prox-Tech, Inc.
Attn.: PROXXON Service Center
2555 Tate Blvd. S.E.
PO Box 1909
Hickory, NC 28603-1909

Please make sure, that your tool is **carefully packaged** and include a copy of your **dated proof of purchase**. You will help us to react even quicker, if you describe the problem in short and please **don't forget to include your name, address and day-time telephone number**. We will respond in a prompt and reliable manner.

Spare Parts

You can also order any necessary **spare parts** from our Service Center at the above address. Please check the **article-number** of the tool concerned on the nameplate of the tool and define the part needed by using the **explosion drawing** in the manual that came with the tool. **Every part has a specific number** (5 digit-XX). Please provide us with this number when ordering.

For any further information call us toll free at **1-877-PROXXON** (1-877-776 9966) or visit us on the web at www.proxxon.com/us.

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